From: Hupp, Steve (PHES)
To: Valmichael Leos/R6/USEPA/US@EPA
Cc: Patel, Snehal (CAO)
Subject: RE: CMI Containment Wall Information
Date: 03/31/2010 07:57 AM

Dear Valmichael,

Since Alisa cannot attend the teleconference today, please send me the information so I can participate.

Sincerely,

Steve Hupp

Stephen Hupp, M. S.
Administrator - Water and Solid Waste Programs
Harris County Public Health and Environmental Services
Environmental Public Health Division - Houston Office
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713-439-6261; Fax: 713-439-6316
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From: Max, Alisa (HCPID)
Sent: Tuesday, March 30, 2010 3:52 PM
To: Hupp, Steve (PHES); Russo, Nick (HCPID); Patel, Snehal (CAO); O'Rourke, Terence (CAO)
Subject: FW: CMI Containment Wall Information

Steve, Nick, Snehal, Terry-
I'm afraid I cannot be on the conference call tomorrow (that I just heard about a few hours ago) as I'll be interviewing firms in anticipation of the next hurricane season. Knowing that I still have a lot of questions, could you guys please ask the following questions tomorrow during the conference call with the EPA and their contractors (including the manufacturer of this sheetpile)? Valmichael will also get a copy of the questions prior; I believe he understands our concerns and is open to seeing if this is- or is not- the right direction to go in.
Thanks!
Alisa

Questions for the composite vinyl piling contractor:

1- Can you drive the sheetpile in through clay layers without the piles buckling? If so, what is the maximum depth the product may be drove in which it is guaranteed to not buckle to (say for clay soils- which is a worst case scenario)?
2- If you cannot drive the sheetpile, what other construction techniques can be used to install the sheetpile? What is the installation process? To what degree will it stir up ground soils/ sediments during installation?
3- Does your product structurally weaken upon application of steady dynamic loading (i.e.- wave action)? What if you also knew the installation was immediately upstream of a bridge in the middle of a hydraulic flow restriction area?
4- Do you have any data of your product withstanding hurricane force winds? How about hurricane force water surges?
5- What is the best way to support your structure in a normally relatively high velocity marine environment when there are areas where there is no existing soil on either side of the piling? Gabions? Would that change if you knew it was also in a hurricane surge zone?

From: Leos.Valmichael@epamail.epa.gov [mailto:Leos.Valmichael@epamail.epa.gov]
Sent: Tuesday, March 30, 2010 3:28 PM
To: Max, Alisa (HCPID)
Subject: Fw: CMI Containment Wall Information

Here's some info the manufacturer CMI sent me.

Valmichael Leos
Remedial Project Manager (RPM)
Remedial Branch LA, NM, OK Team
US Environmental Protection Agency Region 6
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Dallas, Texas 75202
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----- Forwarded by Valmichael Leos/R6/USEPA/US on 03/30/2010 03:26 PM -----

From:	"Vito Phelan" <vphelan@cmilc.com>
To:	Valmichael Leos/R6/USEPA/US@EPA
Date:	03/29/2010 04:58 PM
Subject:	CMI Containment Wall Information

Good afternoon Leos,

It was a pleasure speaking with you regarding the Superfund site you are working on Houston. As you can see our solutions have already been utilized by your organization and Waste Management to cut off everything from groundwater to creosote. The main reasons organizations turn to us when it comes to containment is because we offer a solution that provides better performance, longer life cycles, lower environmental impact (GREEN) and is a less expensive option than traditional materials.

We at CMI invented vinyl sheet piling over 25 years ago. Since then we have been utilized in multiple applications (i.e. flood control structures, containment walls, seawalls, foundation stabilization, dike core/ levee extensions, baffle walls, weir structures) by organizations such as the USACE, US Fish and Wildlife, NRCS, numerous counties, municipalities and private engineering firms.

We have over 60 million square feet in service today that protect cities/towns, refineries, airports, shorelines and other assets around the globe. Engineers choose CMI because we offer a longer service life than traditional materials,such as steel and concrete and are a more cost effective in several ways. Typically the material is about half the cost of steel and can be installed with less labor, lighter equipment, less transportation cost and requires no maintenance during its service life. All of our sheets can be installed using vibratory hammers, plate compactors, drop hammers and water jetting. Basically the same way you can drive steel, you can drive our sheets.

I have attached a few links below for your review. The EPA project link is the site Jon Gulch worked on and will give a brief overview of how we helped out on that particular site. The POLREPS link associated with that project is also linked up. The last link is a white paper regarding the hydraulic performance of our sheets. If you are interested in seeing other project examples including EPA, take a look at the containment home page and click on more info tab. This will give you a brief overview of the project and how we were able to assist our clients.

A couple of projects we just completed are not listed on the site as of yet. One being with WM in Pinellas County, FL where 70' sheets were used to provided seepage protection around one of their landfills. The other was for El Paso Energy in Corpus Christi where our sheets were used to cut off benzene. I can get you information if you need on those projects.

http://www.cmisheetpiling.com/Sheet-piling-applications/Cut-off-seepage-barriers/containment-cut-off-projects.php Containment Wall Home Page

http://www.cmisheetpiling.com/Sheet-piling-applications/Cut-off-seepage-barriers/Florida-Gas-Containment.php EPA Coal Tar Creosote Containment

http://www.epaosc.org/site/site_profile.aspx?site_id=2752 POLREPS for the EPA site Jon Gulch worked on

http://www.cmiengineer.com/whitepapers/hydraulic.pdf Hydraulic Performance

Below are a few other projects we have completed.

US ARMY CORPS, Galveston - Cut-off wall and scour protection for Simms Bayou

- **US ARMY CORPS, Kansas City** - Cut-off wall for Burlington, IA Ammunition
- **US ARMY CORPS, Mobile, AL** - Cut-off wall for Cumberland River, TN
- **US ARMY CORPS, Tulsa, OK** - Cut-off wall for Halstead Dam
- **US ARMY CORPS, Waveland, MS** - Cut-off wall/Road stabilization at Claremont Harbor
- **US ARMY CORPS, Bay St. Louis, MS** - Cut-off wall/Road stabilization at Cowand Point
- **US ARMY CORPS, New Orleans, LA** - Cut-off wall for Bayou Trepagnier
- **US ARMY CORPS, New Orleans, LA** - Cut-off wall for Cousins Canal
- **US ARMY CORPS, New Orleans, LA** - Cut-off wall for Cross Bayou
- **US ARMY CORPS, New Orleans, LA** - Cut-off wall for Keyhole Canal
- **US ARMY CORPS, New Orleans, LA** - Cut-off wall for New Orleans
- **US ARMY CORPS, New Orleans, LA** - Cut-off wall for Soniat Canal
- **US ARMY CORPS, New Orleans, LA** - Cut-off wall for Suburban Canal
- **US ARMY CORPS, New Orleans, LA** - Cut-off wall for Woodmire Seepage Barrier
- **US ARMY CORPS, New Orleans, LA** - Cut-off wall for Patriot St. Canal
- **US ARMY CORPS, Metairie, LA** - Cut-off wall for Soniat Canal
- **US ARMY CORPS, Harvey, LA** - Cut-off wall for Cousins Canal
- **US ARMY CORPS, Marrero, LA** - Cut-off wall for Grand Cross Canal
- **US ARMY CORPS, Fourchon, LA** - Cut-off wall for Port Fourchon
- **BP/Amoco, Bay City, MI** - Cut-off wall around terminal
- **Chem Waste, Lake Charles, LA** - Cut-off wall around landfill
- **Exxon, Lake Conroe, TX** - Cut-off wall
- **Lilyblad Petroleum, Prot of Tacoma, WA** - Cut-off wall
- **Maxim Technologies, Omaha, NE** - Cut-off wall around school
- **Mobil Polyethylene Plant, Beaumont, TX** - Cut-off wall around fire water reservoirs
- **PPG Industries, LaPorte, TX** - Cut-off wall for rail car loading facility
- **Unocal, Norwalk, CA** - Cut-off wall
- **EPA, Manistique Harbor, MI** - Cut-off wall to contain conatminates
- **New York / New Jersey Port Authority, Port Elizabeth, NJ** - Cut-off wall Berths 56-58
- **Ohio Dept. of Natural Resources, Rehoboth, OH** - Cut-off wall around coal mine
- **Santa Cruz County, CA** - Cut-off wall for Salsipuedes Creek Levee
- **US** Air Force**, KI Sawyer Air Force Base, Sawyer, MI** - Cut-off wall
- **US Air Force, Otis Air Force Base, MA** - Cut-off wall
- **EPA, Wilmington, NC** - Cut-off wall
- **Winston-Salem/Forsyth County Utility Commission** - Cut-off wall
- **US ARMY CORPS, Flint River, MI** - Cut-off wall

As you can see we have quite a bit of experience when it comes to chemical containment and look forward to helping you on the San Jacinto project. I have attached a spec sheet of our SG625 which was specifically designed for containment applications. We designed this sheet to have less locks thus decreasing the opportunity for any chemical to escape.

If there is any other information you or the owner may need please do not hesitate to contact me.

Have a great afternoon,

Regards,

Vito Phelan
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